

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Pearson Creek

Water Body ID: 2373

Water Body Segment at a Glance:

| | |
|---------------------|--|
| County: | Greene |
| Nearby City: | Springfield |
| Length: | 8.0 miles |
| Pollutant 1: | <i>E. coli</i> bacteria |
| Source 1: | Urban and rural runoff sources |
| Pollutant 2: | Aquatic macroinvertebrate bioassessments |
| Source 2: | Unknown |



Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at

dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm.

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Pearson Creek is impaired due to exceedances of water quality criteria that protect aquatic life and recreational uses.

Designated uses of Pearson Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category A (WBC-A)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Use that is impaired

- Whole Body Contact Recreation Category A (WBC-A)
- General criteria

Criteria that Apply

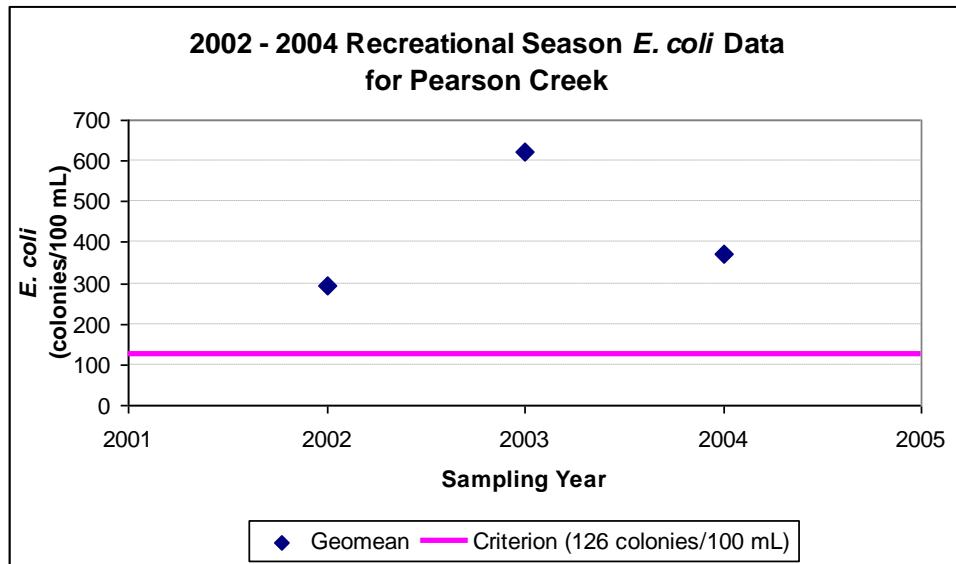
Missouri's water quality criteria for bacteria at 10 CSR 20-7.031(5)(C) and Table A state that for category A waters, the *E.coli* bacteria count, measured as a geometric mean, shall not exceed 126 per 100 milliliters of water during the recreational season (April 1- October 31).

The state's general water quality criteria at 10 CSR 20-7.031(4) are applicable to all waters of the state at all times. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life [10 CSR 20-7.031(4)(D)].
- Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community [10 CSR 20-7.031(4)(G)].

Assessment and water quality data

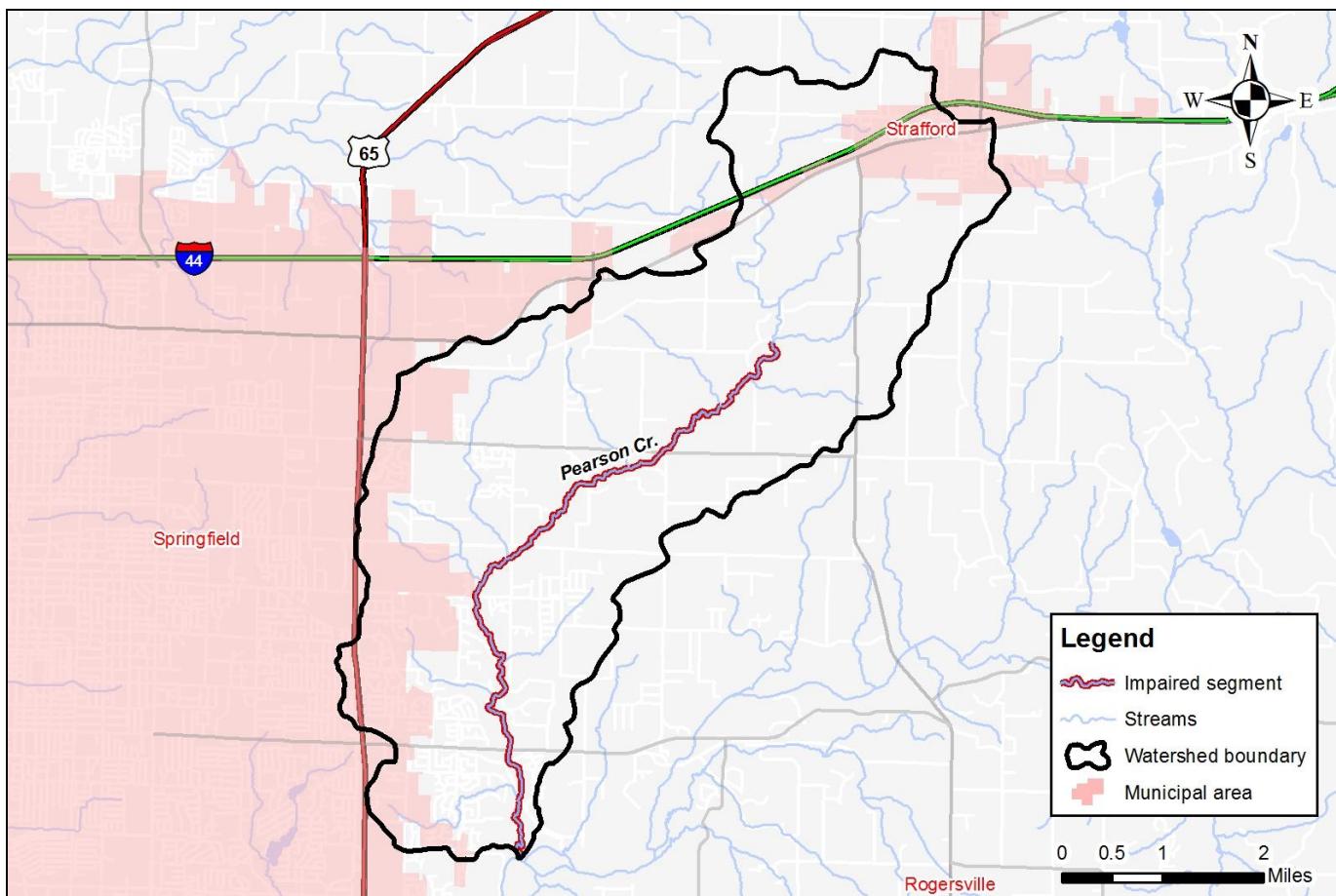
High counts of *E. coli* in surface waters are an indication of fecal contamination. *E. coli*, are bacteria found in the intestines of warm blooded animals and are used as indicators of the risk of waterborne disease from pathogenic bacteria or viruses. The department judges a stream to be impaired by *E. coli* if the criterion is exceeded in any of the last three years for which there is a minimum of five samples collected during the recreational season. Bacteria data for Pearson Creek is available from 2002 to 2004. The whole body contact A criterion was exceeded in all three of those years.



TMDL for Pearson Creek

The Pearson Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Pearson Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

Map of the Pearson Creek watershed



For more information call or write:

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